

Listing of the Claims

The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

1 – 48 (cancelled)

49. (Cancelled)

50. (Currently Amended) The method of claim 4958, wherein said blood sample of step (a) and each of said blood samples from said control subjects ~~in step (b) have~~ has not been fractionated into cell types.

51. (Currently Amended) The method of claim 4958, wherein said blood sample of step (a) and/or each of said blood samples from said control subjects ~~in step (b) are unfractionated samples of lysed blood~~ comprises leukocytes which have not been fractionated into cell types.

52. (Currently Amended) The method of ~~any of claims~~ claim 4958, 50 or 51, wherein said ~~quantification of said level of said RNA encoded by said gene in step (a)~~ quantifying is effected by ~~quantifying said RNA~~ relative to a housekeeping gene.

53. (Currently Amended) The method of ~~any of claims~~ claim 4958, 50 or 51, wherein said ~~quantification of said level of said RNA encoded by said gene in step (a)~~ quantifying is effected by ~~quantification of~~ quantifying cDNA corresponding to said RNA encoded by said gene.

54. (Cancelled)

55. (Cancelled)

56. (Currently Amended) The method of ~~any of claims~~claim 4958, 50 or 51, wherein said ~~quantification of said level of said RNA encoded by said gene in step~~ (a)quantifying is ~~determined~~effected using quantitative ~~real-time~~ RT-PCR.

57. (Currently Amended) The method of ~~any of claims~~claim 4958, 50 or 51, wherein said ~~quantification of said level of said RNA encoded by said gene in step~~ (a)quantifying is ~~determined~~effected using an array.

58. (New) A method of classifying netrin 4 (NTN4) gene expression in a human test subject, said method comprising:

- (a) quantifying a level of RNA encoded by a netrin 4 (NTN4) gene in a blood sample from said test subject; and
- (b) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples from control subjects having osteoarthritis; and
- (c) comparing said level of step (a) with quantified levels of RNA encoded by said gene in blood samples from control subjects who are healthy;

wherein a determination from steps (b) and (c) that said level of step (a) is statistically similar to said levels in said samples from said subjects having osteoarthritis and is statistically different from said levels in said samples from said healthy subjects, results in a classification of netrin 4 (NTN4) gene expression in said test subject with that of said subjects having osteoarthritis, and

wherein a determination from steps (b) and (c) that said level of step (a) is statistically different from said levels in said samples from said subjects having osteoarthritis and is statistically similar to said levels in said samples from said healthy subjects, results in a classification of netrin 4 (NTN4) gene expression in said test subject with that of said subjects who are healthy.

59. (New) The method of claim 58, 50 or 51, wherein none of said control subjects are subject to systemic steroids or have a disease selected from the group consisting of rheumatoid arthritis, hypertension, obesity, allergies, mild osteoarthritis and severe osteoarthritis.

60. (New) The method of claim 58, 50, 51 or 59, wherein said control subjects having osteoarthritis have moderate osteoarthritis.

61. (New) The method of claim 58, 50, 51 or 59, wherein said control subjects having osteoarthritis have marked osteoarthritis.